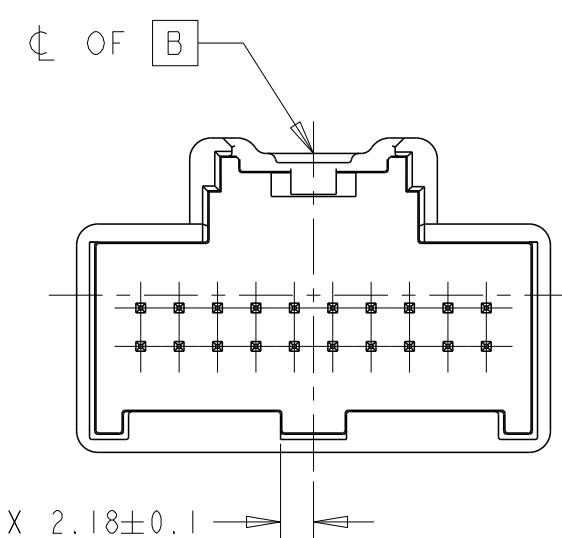


DIMENSIONS ARE SHOWN AT DATUM D
SCALE 2:1



Technical drawing of a cross-section of a multi-pin connector. The drawing shows a central cavity with 16 pins arranged in two rows of 8. Dimensions are provided for the overall width (1.78 ± 0.1), the distance between the pin rows (4.13 ± 0.1), the pin diameter (0.23 ± 0.1), and the distance from the center to the outer edge (2.18 ± 0.1). A label "C OF B" points to the top surface.

Technical drawing of a cross-section of a multi-layer printed circuit board (PCB). The drawing shows a central core with a grid of holes and a surrounding prepreg layer. Dimensions are given in millimeters.

Dimensions:

- 0.23 ± 0.1
- 1.78 ± 0.1
- 4.13 ± 0.1
- 2.18 ± 0.1

Callout: C OF B

Technical drawing showing a cross-section of a multi-hole plate. The drawing includes a callout box labeled "B" with a leader line pointing to a specific feature. Dimensions are provided for the plate thickness and the hole diameter.

Dimensions:

- Plate thickness: $2X \ 1.78 \pm 0.1$
- Hole diameter: $X \ 4.13 \pm 0.1$

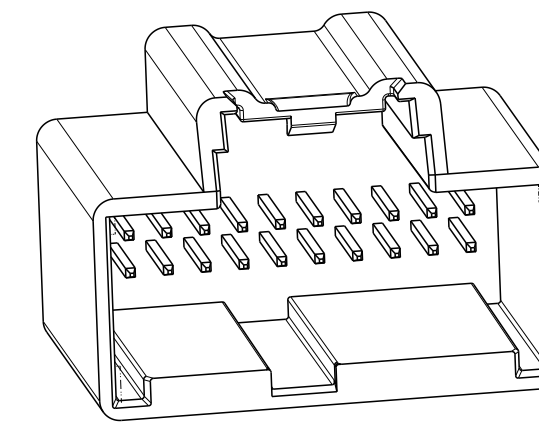
OF B

0.23 ± 0.1

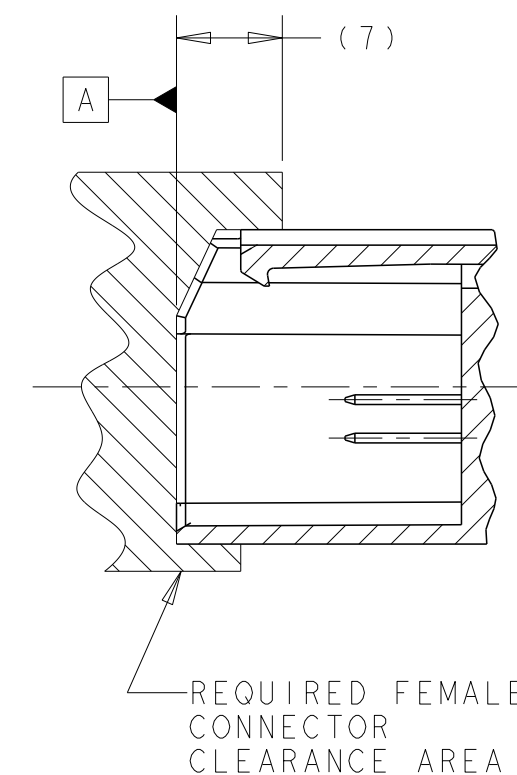
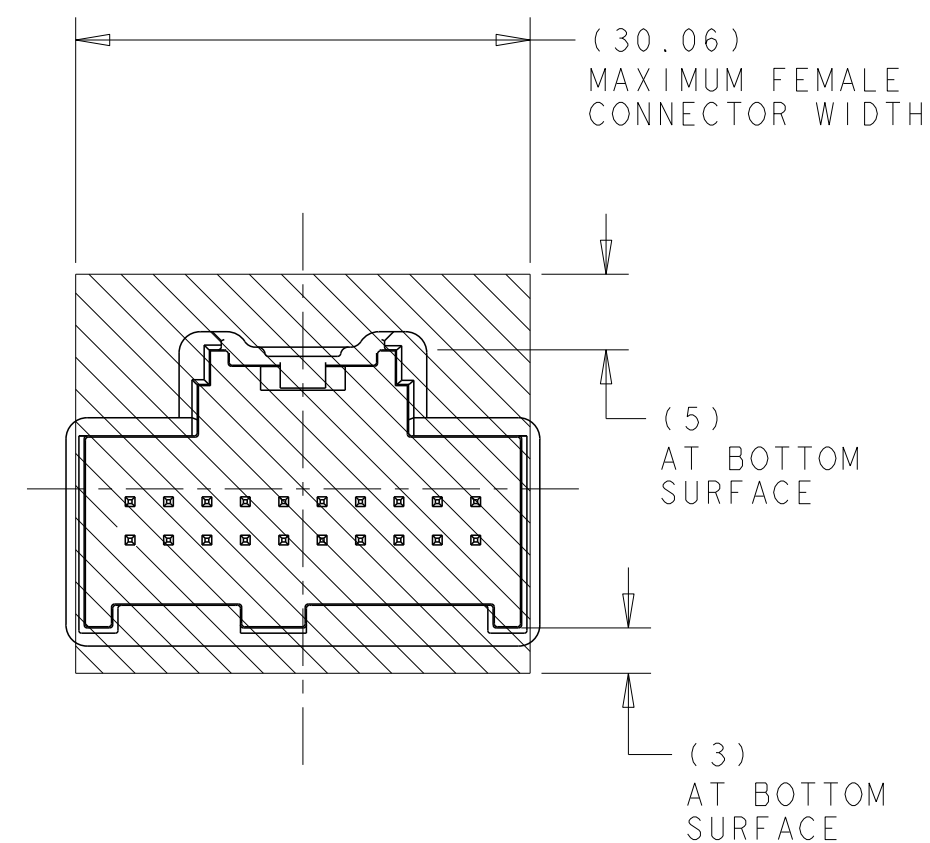
4.13 ± 0.1


KEYING OPTION "F"

064-U-020-2-A02	A	BLACK
064-U-020-2-B02	B	GRAY
064-U-020-2-C02	C	BROWN
064-U-020-2-D02	D	GREEN
064-U-020-2-E02	E	DARK BLUE
064-U-020-2-F02	F	NATURAL/WHITE
EWCAP P/N	POLARITY	MATING CONNECTOR COLOR



ISOMETRIC VIEW



1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
2. 0.1 MAX RADII ON ALL CORNERS SHOWN SHARP.
3. ALL UNSPECIFIED RADII 0.25 MAX.
4. STANDARD COLORS FOR POLARIZATION (SEE CHART IN LEFT LOWER CORNER OF THE DRAWING SHEET)
5. REFER TO "SAE/USCAR 12 CONNECTOR DESIGN CRITERIA" FOR ADDITIONAL REQUIREMENTS.
6. EXCEPT WHERE NOTED, DRAFT ON OUTSIDE SURFACES IS PERMISSIBLE WITHIN TOLERANCE.
7.  : SYMBOL INDICATES DRAFT DIRECTION.

FOR TERMINAL MATERIAL, DIMENSIONAL, AND COATING REQUIREMENTS SEE
EWCAP-001 TERMINAL .064-T001.

9.

TO CLAIM USCAR COMPLIANCE, PARTS PRODUCED TO THIS FOOTPRINT DRAWING
MUST BE TESTED TO AND MEET THE REQUIREMENTS OF SAE/USCAR 2.

10.

RECOMMENDED WALL THICKNESS 1.2 TYPICAL, 1.5 PREFERRED.



PART MUST MEET POLARIZATION EFFECTIVENESS SPECIFICATION WITH OR WITHOUT CHAMFERS.

12.

KEYING OPTION "A" SHOWN IN GENERAL VIEWS.



THIS GEOMETRY IS OPTIONAL.



NOTICE

THIS DRAWING, OR PORTIONS OF IT ARE CONTROLLED BY THE ELECTRICAL
WIRING COMPONENTS APPLICATION PARTNERSHIP (EWCAP), A SUBGROUP OF
THE UNITED STATES COUNCIL FOR AUTOMOTIVE RESEARCH LLC (USCAR LLC).

USCAR IS A LLC CONSISTING OF MEMBERS FROM FCA US LLC, FORD MOTOR COMPANY, AND GM CORPORATION.

ANY CHANGE TO A EWCAP CONTROLLED PORTION OF THIS DRAWING, INCLUDING A REVISION RECORD CHANGE MUST BE APPROVED, IN WRITING, BY THE RESPONSIBLE EWCAP REPRESENTATIVE FROM EACH USCAR MEMBER COMPANY. EACH EWCAP REPRESENTATIVE AUTHORIZED TO SIGN FOR HIS OR HER MEMBER COMPANY IS RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS WITHIN THAT COMPANY PRIOR TO SIGNING FOR THE APPROVAL OF THE CHANGE.

EWCAP EXPRESSLY PROHIBITS ANY PARTY FROM CHANGING EITHER ANY
EWCAP CONTROLLED PORTION OF THIS DRAWING OR ANY ASSOCIATED
TOOLING BEFORE RECEIVING APPROVAL, SIGNED BY THE AUTHORIZED
REPRESENTATIVES, OF THE USCAR MEMBER COMPANIES. REFERENCE TO
THE SIGNED CHANGE NOTICE MUST BE ENTERED IN THE DRAWING CONTROL
COLUMN.

[illegible]

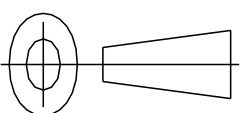
133 136	B	ADDED PARALLELISM CONTROL; 0.13 WAS 0.013,KEYING OPTIONS	01-09-17	DLD	CJS
	A	RELEASED	06-22-15	DLD	CJS
CHANGE SERIAL NUMBER	LET	REVISION RECORD	DATE	DWN	CHK

TOLERANCES (UNLESS OTHERWISE SPECIFIED)

THIRD ANGLE PROJECTION

DIMENSIONS ARE IN MILLIMETERS

ANGLES $\pm 2^\circ$

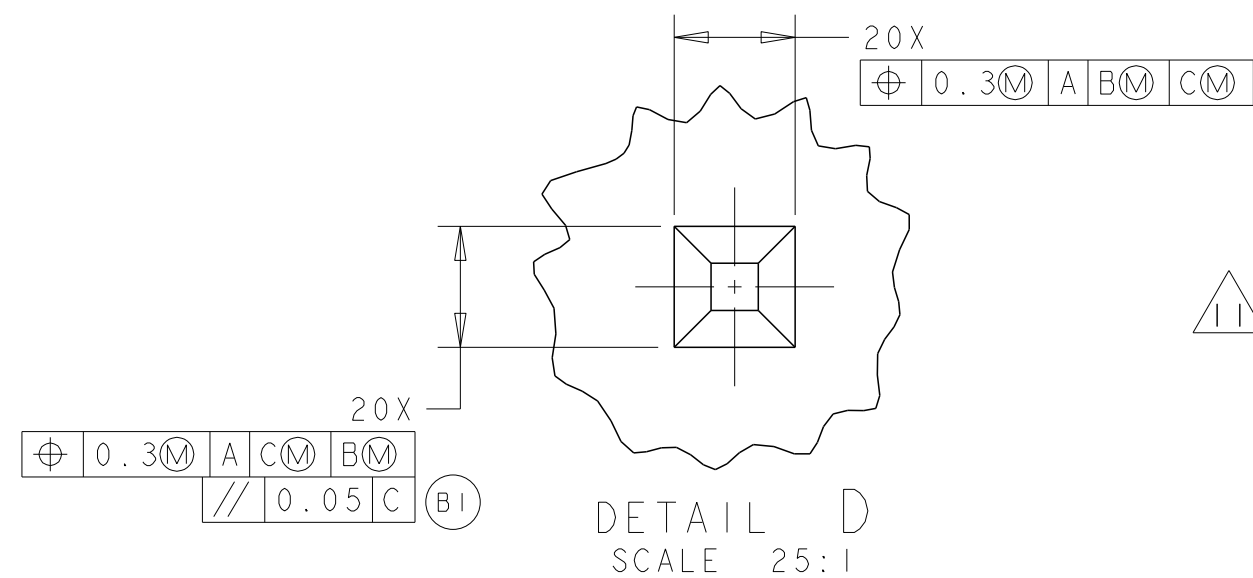
$$X.X \pm \quad X.XX \pm$$


USCAR-EWCAP

SCALE 2:1	DRAWN BY DL DRUMMOND	CHECKED BY CJ SCHMID	DATE 06-22-15
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TITLE	SE DOWNS	CS DOWNS	SS DOWNS
2 X 10 UNSEALED INTERFACE 0.64mm CONNECTORS			

SHEET 1 OF 2	DRAWING NUMBER 064-U-020-2-Z02	SIZE A2	DO NOT SCALE DRAWING COMPUTER AIDED DRAWING	REVISION LEVEL B
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CHAMFER OPTIONAL
IN THESE AREAS

SEE DETAIL D

CL OF C

TERMINAL "I"
TERMINAL "II"

TERMINAL "10"

TERMINAL "20"

CL OF B

CL OF C

CL OF B

CL OF C

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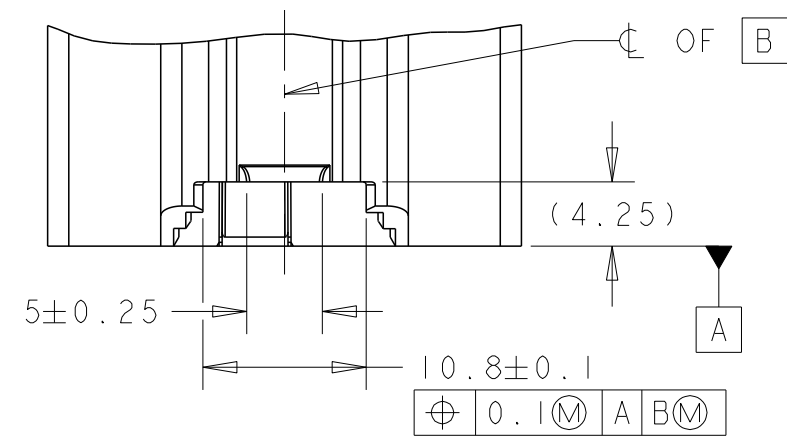
CL OF C

CL OF B

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2X 0.6±0.1 x 45°

3±0.1

0.1M A B M

CL OF B

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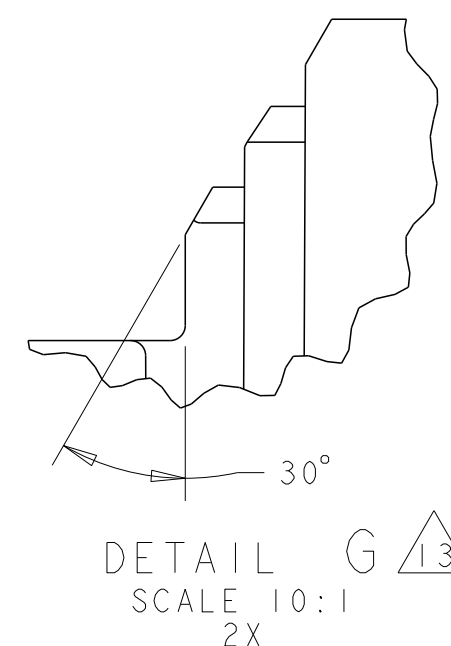
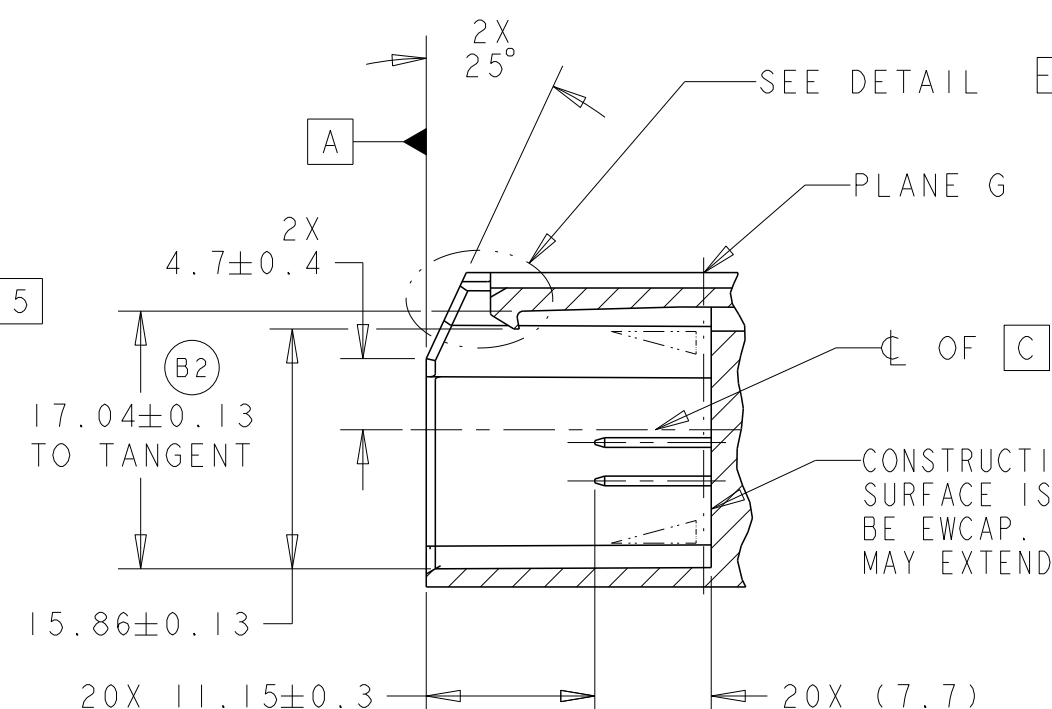
CL OF C

CL OF B

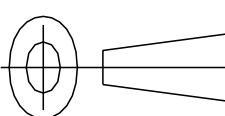
CL OF C

CL OF B

ALTERNATE GEOMETRY ALLOWED IN
THESE CORNERS AS NEEDED FOR
MOLDABILITY. MUST NOT INTERFERE
WITH INTERNAL PROFILE.



THIRD ANGLE PROJECTION



TOLERANCES (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN MILLIMETERS

ANGLES ± 2°

X.X ± X.XX ±

USCAR-EWCAP

SCALE 2:1 DRAWN BY DL DRUMMOND CHECKED BY CJ SCHMID DATE 06-22-15

TITLE 2 X 10 UNSEALED INTERFACE 0.64mm CONNECTORS

SHEET 2 OF 2 DRAWING NUMBER 064-U-020-Z02 SIZE A2 DO NOT SCALE DRAWING COMPUTER AIDED DRAWING REVISION LEVEL B

